

Originator

AIR AND RADIATION DIVISION CONCURRENCE SHEET

SUBJECT/ETS Title: Veolia ES Technical Solutions, Saugus, IL  
CPT Approval Letter

CONTROL NUMBER: \_\_\_\_\_ AECAB Track/Log Number: \_\_\_\_\_  
 (if applicable) (Administrative Use Only)

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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 5**

**77 WEST JACKSON BOULEVARD**

**CHICAGO, IL 60604-3590**

**NOV 25 2009**

REPLY TO THE ATTENTION OF:

(AE-17J)

Douglas Harris, General Manager  
Veolia ES Technical Solutions, L.L.C.  
7 Mobile Avenue  
Sauget, Illinois 62201

Dear Mr. Harris:

The National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 C.F.R. Part 63, Subpart EEE (HWC MACT), among other things, requires the owner or operator of a hazardous waste incinerator to submit to the U.S. Environmental Protection Agency a comprehensive performance test (CPT) plan and continuous monitoring system performance evaluation test (CMS PET) plan. Further, the HWC MACT requires the owner or operator to conduct a CPT to demonstrate compliance with applicable emission standards and to establish various operating parameter limits (OPLs). The CPT plan must include the information specified in 40 C.F.R. § 63.1207(f)(1)(i) through (xxvii). The CMS PET plan must include the information specified in the Appendix to the HWC MACT.

Veolia ES Technical Solutions, L.L.C. (Veolia) submitted to EPA CPT and CMS PET plans for each of its three hazardous waste incinerators on October 14, 2008, and submitted revised CPT and CMS PET plans on September 15, 2009. By this letter, with the exceptions noted below, EPA approves the revised CPT and CMS PET plans for Incinerator 2, Incinerator 3, and Incinerator 4.

EPA approves Veolia's request to use previous Resource Conservation and Recovery Act (RCRA) Trial Burn data for Incinerator 3 and Incinerator 4 to demonstrate compliance with the destruction and removal efficiency (DRE) standard in 40 C.F.R. § 63.1219(c) and to establish the DRE OPLs required by 40 C.F.R. § 63.1209(j). Because Veolia has not submitted the results of a DRE test on Incinerator 2, EPA disapproves Veolia's request to use prior RCRA Trial Burn DRE data for Incinerator 2 to demonstrate compliance with the DRE standard and to establish the DRE OPLs. EPA approves Veolia's request to use the results of previous metals performance tests to demonstrate compliance with the mercury, semivolatile metals (SVM; cadmium and lead), low volatile metals (LVM; arsenic, beryllium, and chromium) emission standards and to establish the applicable mercury, SVM, and LVM OPLs based on the spike concentrations for Incinerator 2, Incinerator 3, and Incinerator 4.

## **Submissions and Revisions**

On October 14, 2008, Veolia submitted to EPA CPT and CMS PET plans for each of its three hazardous waste incinerators. On July 14, 2009, EPA responded with comments on the CPT plans, which EPA and Veolia representatives discussed during a July 28, 2009, teleconference. On July 29, 2009, pursuant to 40 C.F.R. §§ 63.7(h) and 63.1207(e)(3)(ii), Veolia requested an extension of time to commence its CPT. On August 7, 2009, EPA approved an extension of time, to February 16, 2010, for Veolia to commence its CPT. On August 19, 2009, Veolia sent to EPA by electronic mail a summary of the changes that the company agreed to make to the CPT plans. On September 15, 2009, Veolia submitted revised CPT and CMS PET plans.

## **Comprehensive Performance Test Plan and CMS Test Plan**

The required components of a CPT plan are set forth in 40 C.F.R. § 63.1207(f)(1)(i) through (xxvii). The CMS PET plan must include the information specified in the Appendix to the HWC MACT. On July 15, 2009, EPA noted that the CPT plans do not include the information required by 40 C.F.R. §§ 63.1207(f)(1)(i)(A) and 63.1207(f)(1)(ii)(A). However, EPA recognized that the heating value and concentrations of ash, mercury, SVM, LVM, total chlorine (organic and inorganic), and organic hazardous air pollutants (HAPs) vary greatly across the several hundred waste streams that Veolia incinerates. On August 19, 2009, Veolia agreed to include in the final test burn report the "as fired" heating value and concentrations of ash, mercury, SVM, LVM, total chlorine and organic HAPs in each waste stream burned during the CPT. EPA expects Veolia to make these changes in the CPT plans and to include the required information in the final test report for each incinerator.

We note two errors in Table 1-1 entitled "Summary of Applicable MACT Emission Standards." One, Veolia cited 40 C.F.R. § 63.1215(c)(4) for the hydrogen chloride and chlorine (HCl/Cl<sub>2</sub>) emission standard. The correct citation is 40 C.F.R. § 63.1219(a)(6). Two, Veolia's hazardous waste incinerators are equipped with a dry air pollution control system and the maximum dry particulate matter air pollution control device inlet temperature OPL is greater than 400 degrees Fahrenheit. Therefore, the dioxin/furan emission standard in 40 C.F.R. § 63.1219(a)(1)(i)(B), 0.4 nanogram toxic equivalent per dry cubic meter (ng TEQ/dscm), does not apply to Veolia's hazardous waste incinerators. Veolia must revise the CPT plans to reflect these corrections.

We also note two errors in Table 5-1 entitled "General Sampling and Analytical Program Overview (Stack Exhaust)." One, Veolia included in the Table the dioxin/furan emission standard from 40 C.F.R. § 63.1219(a)(1)(i)(B) that does not apply to any of Veolia's hazardous waste incinerators. Two, Veolia cited 77 parts per million by volume (ppmV) as the HCl/Cl<sub>2</sub> emission standard when the correct HCl/Cl<sub>2</sub> emission standard is 32 ppmV in 40 C.F.R. § 63.1219(a)(6). Veolia must revise the CPT plans to reflect these corrections.

EPA reviewed the revised CPT and CMS PET plans and determined that they are otherwise complete and appropriate. Therefore, with the corrections noted above and the exceptions discussed below, EPA approves the revised CPT plans and CMS PET plans for Incinerator 2, Incinerator 3, and Incinerator 4.

## **Data in Lieu Requests**

Pursuant to 40 C.F.R. § 63.1207(c)(2)(i), Veolia may request that EPA approve the use of previous emissions test data as documentation of compliance with the emission standards of the HWC MACT provided that the data meets certain conditions. In Section 1.3.2 of each CPT plan, Veolia requested that EPA approve the use of RCRA Trial Burn data to demonstrate compliance with the DRE standard in 40 C.F.R. § 63.1219(c) and to establish the DRE OPLs required by 40 C.F.R. § 63.1209(j). Veolia did not submit the results of the Trial Burn DRE tests with its request, as required by 40 C.F.R. § 63.1207(c)(2)(ii). However, Veolia previously submitted the results of a January 1997 DRE test on Incinerator 3 and a February 1996 DRE test on Incinerator 4. EPA reviewed the Incinerator 3 and Incinerator 4 data and concluded that it meets the criteria set forth in 40 C.F.R. § 63.1207(c)(2)(i)(A-D). Therefore, EPA approves Veolia's request to use prior RCRA Trial Burn DRE data for Incinerator 3 and Incinerator 4 to demonstrate compliance with the DRE standard and to establish the DRE OPLs. Veolia has not submitted the results of a DRE test on Incinerator 2. Therefore, EPA disapproves Veolia's request to use prior RCRA Trial Burn DRE data for Incinerator 2 to demonstrate compliance with the DRE standard and to establish the DRE OPLs. If Veolia has the results of an Incinerator 2 DRE test of which EPA is not currently aware, Veolia may re-submit this request.

In Section 1.3.2 of each CPT plan, Veolia also requested that EPA approve the use of metals performance test data from August and September 2008 to demonstrate compliance with the mercury, SVM, and LVM emission standards in 40 C.F.R. §§ 63.1219(a)(2), 63.1219(a)(3), and 63.1219(a)(4), respectively, and to establish the applicable mercury OPLs required by 40 C.F.R. § 63.1209(l) and the applicable SVM and LVM OPLs required by 40 C.F.R. § 63.1209(n). On October 14, 2009, EPA disapproved Veolia's data in lieu request for mercury and stated that Veolia must resubmit a CPT plan that includes stack testing for mercury; install a mercury continuous emission monitor; or cease the combustion of mercury-containing waste. Although the results of the performance test on each hazardous waste incinerator demonstrate compliance with the mercury, SVM, and LVM emission standards under the conditions that existed during the tests, Veolia's contractor did not correctly determine the moisture content of the waste samples that were collected during the performance tests. However, the contractor's error does not affect the calculation of the metals' feed rate from spiking.

After October 14, 2009, EPA realized that a fourth viable option exists and applies to SVM and LVM also: Veolia may establish the mercury, SVM, and LVM feed rate OPLs using the concentration of the metals in the spike. Even though this option does not account for metals that were native to the wastes that were burned during the August and September 2008 tests, this option fulfills the requirement in 40 C.F.R. § 63.1207(b)(1) to demonstrate compliance with the mercury, SVM, and LVM emission standards and to establish the OPLs specified in 40 C.F.R. § 63.1209. EPA concludes that the results from the August and September 2008 metal performance tests are sufficient to establish the applicable OPLs under section 63.1209, and therefore, approves Veolia's request to use metals performance test data from August and September 2008 to demonstrate compliance with the mercury, SVM, and LVM emission standards and to establish the applicable mercury, SVM, and LVM OPLs based on the spike concentrations. Veolia may conduct another set of metal performance tests to establish higher metal feed rate OPLs provided that the data meets quality control and quality assurance

objectives.

### **Request to Use Method 23 Instead of Method 0023A**

Pursuant to 40 C.F.R. § 63.1208(b)(1)(i)(B)(1), Veolia may request that EPA approve the use of Method 23 in 40 C.F.R. Part 60, Appendix A, instead of Method 0023A in EPA Publication SW-846 as prescribed in 40 C.F.R. § 63.1208(b)(1)(A) for Incinerator 2 and Incinerator 3.

40 C.F.R. § 63.1208(b)(1)(i)(B)(2) provides:

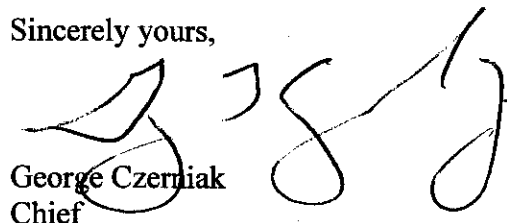
In determining whether to grant approval to use Method 23, the Administrator may consider factors including whether dioxin/furan were detected at levels substantially below the emission standard in previous testing, and whether previous Method 0023 analyses detected low levels of dioxin/furan in the front half of the sampling train.

Veolia did not submit the results of previous dioxin/furan performance tests with its request. Veolia previously conducted three and five dioxin/furan performance tests on Incinerator 2 and Incinerator 3, respectively, for which EPA has the test report; however, none of the test reports contain the information that EPA needs to determine whether the use of Method 23 is appropriate. Consequently, EPA disapproves Veolia's request to use Method 23 in 40 C.F.R. Part 60, Appendix A. Veolia must use Method 0023A in EPA Publication SW-846 to conduct the dioxin/furan performance tests on Incinerator 2 and Incinerator 3 as required by 40 C.F.R. § 63.1208(b)(1)(A).

### **Summary**

The Administrator of the EPA, by authority duly delegated to the undersigned, approves the revised CPT and CMS PET plans, modified as discussed above, for Incinerator 2, Incinerator 3, and Incinerator 4. Further, EPA approves Veolia's data in lieu request for DRE for Incinerator 3 and 4, but not Incinerator 2, and further disapproves Veolia's data in lieu request for mercury, SVM, and LVM. EPA also disapproves Veolia's request to use Method 23 in 40 C.F.R. Part 60, Appendix A, for the dioxin/furan tests on Incinerator 2 and Incinerator 3. Please direct any questions that you have regarding this letter to Charles Hall, of my staff, at (312) 353-3443.

Sincerely yours,



George Czerniak  
Chief

Air Enforcement and Compliance Assurance Branch

cc: Jeff Gorman, ENSR  
Michael Reed, Illinois Environmental Protection Agency  
Mark Schlueter, Illinois Environmental Protection Agency

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